

REMARKS

The present Amendment and RCE are being filed in response to the Office Action dated October 23, 2002. The rejections in that Office Action were discussed in an interview courteously afforded the undersigned counsel for the Applicants on January 23, 2003, and the present Amendment is based on the discussion at that interview.

Claim 14 and claims 23-30 have been cancelled, and therefore no response to the merits of the rejection of those claims is necessary.

In the Office Action, the Examiner noted that the clerical staff in the Examiner's group had not entered claim 15 as presented in Applicants' previous response, because that response requested that claim 15 be "substituted" for claim 1. Since claim 15 was given a sequential numerical designation, however, it is clear that claim 15 was, in fact, a newly-added claim, and the word "substitute" was used only to indicate that claim 15 should stand in the place of claim 1 with regard to the claims formerly depending from claim 1, all of which were also amended to specifically designate their dependency from claim 15. The undersigned counsel for the Applicants has used the instruction to "substitute" a claim for another, with the substitute claim being given a successive numerical designation, in hundreds of amendments, and has never received a response as in the last Office Action. Nevertheless, the present Amendment now requests entry of claim 15, and therefore it is being presented as a "new" claim, even though the version presented herein differs from the version presented in Applicant's previous response. Since this is being treated as a newly added claim, it would not be proper to indicate the added material by underlining.

Despite the clerical non-entry of claim 15, it was treated on the merits in the last Office Action. In that action, all of the claims which now are pending in the application were rejected under 35 U.S.C. §103(a) as being unpatentable over Paltieli in view of Ferre et al.

As discussed at the interview, the Paltieli reference, as discussed at column 8, lines 42-63 thereof, teaches mixing an image of a biopsy needle into an ultrasound image with the image of the biopsy needle being differently colored dependent on whether the needle is located in the plane of the 2D sector scan or outside of the plane of this sector scan or intersects the plane of this sector scan. The Paltieli display, therefore, merely provides "yes or no" information by virtue of the color display. Looking at the display in Paltieli, a viewer is only able to ascertain whether the biopsy needle is in or intersecting the sector scan plane, or is outside of the sector scan plane. If the biopsy needle is outside of the sector scan plane, the display in Paltieli provides the view with no indication as to how far outside of the plane the biopsy needle is.

By contrast, independent claim 15 states that the distance designation that is mixed into the 2D image is alterable dependent on the magnitude of the distance that the tip is outside of the image plane. No such information is provided in the Paltieli reference, nor is there any suggestion to do so in that reference.

The Ferre et al. reference was apparently relied upon by the Examiner only for the purpose of providing a teaching to mix a representation of the tip of the needle into the image and a teaching to identify a flexible tip of an instrument. Therefore, even if the Paltieli reference were modified in accordance with the teachings of Ferre et al., a system as set forth in claim 15 still would not result.

As to independent claim 16, as discussed at the interview neither the Paltiel reference nor the Ferre et al. reference discloses or suggests a position acquisition system which determines a position of the image signal acquisition unit as well as the support mechanism on which the patient is located, as well as of a second subject relative to the image signal acquisition unit. Language requiring that the position acquisition system determine these positions was already included in claim 16 as presented in the previous response. Nevertheless, claim 16 has been amended to make clear that the mixing unit mixes the representation of the second subject into the image of the first image dependent on the aforementioned positions acquired by the position acquisition system. Since neither the Paltiel reference nor the Ferre et al. reference provides a teaching or suggestion to identify the position of the patient support mechanism, claim 16 would not have been obvious to a person of ordinary skill in the art based on the teachings of those references.

For the foregoing reasons, Applicants submit that independent claims 15 and 16, and the respective sets of dependent claims depending therefrom are allowable over the art of record.

Support in the specification as originally filed for the language added claim 15 is present in the paragraph bridging pages 12 and 13, which also provides support for new claims 3`1, 32 and 33 which are added herein.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

Submitted by,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Please amend claim 16 as follows:

16. (Amended) A system comprising:

an image signal acquisition unit for acquiring image signals of a first subject,

and an image unit for producing an image of ~~said~~ first subject from said
image signals;

a support mechanism for supporting ~~said~~ first subject;

a position acquisition system for determining a position of said image signal
acquisition unit, said support mechanism, and a second subject relative
to said image signal acquisition unit; and

a mixing unit for mixing a representation of said second subject into said
image of ~~said first subject dependent on said position of said image~~
~~signal acquisition unit, said support mechanism, and said second~~
~~subject relative to said image signal acquisition unit.~~